

PLC OR ARC?

FARM BILL PROGRAM SIGN-UP AND DECISION AIDS

Nick Baker

Rock County UW Extension Agriculture Agent

608-757-5698

nick.baker@ces.uwex.edu



Multi-Step Process with Different Deadlines

- **Step 1: Maintain or Reallocate Base Acres**
 - **Step 2: Keep or Update Yields**
 - Step 3: Elect PLC/ARC-CO/ARC-IC
 - Step 4: Consider SCO
 - Step 5: Enroll in PLC/ARC
 - Recommendations
 - Choose option that puts most Base Acres into Corn
 - Choose option that gives you the highest Program Yields
- By 2/27/15**
1 Owner Signs
- By 3/31/2015**
- By 3/15/2015**
- By Summer 2015**

Updating Base Acres


- Base acres haven't been updated since 2002 Farm Bill, so current base acres are based on 1998-2001 plantings
- 2 Options
 - 1. Keep current base acres
 - 2. Keep same total base acres, but reallocate using actual 2009-2012 planted acre shares
- Recommendation: Choose option that puts more base acres into Corn: crop with the highest expected payments
 - In WI: Corn > Soybeans ≥ Wheat > Oats
- Farm cannot increase total base acres, only reallocate total based on acreage shares planted during 2009-2012

Base Acre Updating Tool

- http://www.fsa.usda.gov/Internet/FSA_File/evaluate_arc_plc.pdf
- Scroll down, hit link, zip file to get Excel spreadsheet

Crop	2013 Base Acres	Planted and Considered Planted (P&CP) Acres				2009-12 Average P&CP	Reallocation Percentage	2014 Reallocated Base Acres
		2009	2010	2011	2012			
<i>Barley</i>								
<i>Canola</i>								
<i>Corn</i>	85.80	95.50	67.80	103.70	58.80	81.45	53.11%	75.85
<i>Crambe</i>								
<i>Dry Peas</i>								
<i>Flaxseed</i>								
<i>Grain Sorghum</i>								
<i>Large Chickpeas</i>								
<i>Lentils</i>								
<i>Mustard Seed</i>								
<i>Oats</i>			14.00	5.00		4.75	3.10%	4.42
<i>Peanuts</i>								
<i>Rapeseed</i>								
<i>Rice (Long Grain)</i>								
<i>Rice (Medium/Short Grain)</i>								
<i>Safflower</i>								
<i>Sesame Seed</i>								
<i>Small Chickpeas</i>								
<i>Soybeans</i>	57.00	41.70	78.40	44.80	103.70	67.15	43.79%	62.53
<i>Sunflower Seed (All)</i>								
<i>Wheat</i>								
Totals	142.80	137.20	160.20	153.50	162.50	153.35	100.00%	142.80

- Alternative enter data into an online tool:
<http://fsa.usapas.com/>

**United States Department of Agriculture**
Farm Service Agency

Search FSA

USDA HomeFarm Bill Analysis HomeAPAS Sample FarmsAPAS Custom Farms BYOF

Site Map

Agriculture Policy Analysis System (APAS)

APAS Sample Farm

Five Minute Review of Analytics for Your County


Quick program payment comparison using data for your state and county

APAS Custom Farm
Build Your Own Farm

Enter your own farm's information for detailed program and risk management analysis

NAP Crops
Coming Soon

Dairy

 **farmdoc**
Farm Bill Toolbox
University of Illinois at Urbana-Champaign

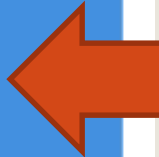
Start Here for Program & Tool Explanation

Payment Yield Update
Quick Calculator

Base Acre Reallocation
Quick Calculator

APAS FAQ
Coming Soon

YouTube Channel
Coming Soon



- Alternative enter data into an online tool:
<http://fsa.usapas.com/>

Base Acre Reallocation

Please add the relevant crops on your farm to the calculation.

Add a crop

Select

Add to calculation

Please enter the acreage for each crop.

Crop	Base Acres	Planted Acres				Base Acres	
	Existing	2009	2010	2011	2012	Reallocated	
Corn	85	89	96	110	105	95.24	Delete
Soybeans	65	60	55	50	65	54.76	Delete

Calculate Reallocated Base

Total base acres: 150

Generic base acres: 0

Yield Updating

- Haven't been updated since 2002 Farm Bill, so currently based on 1997-2001 yields
- 1. Keep your current yields
- 2. Update yields to 90% of your 2008-2012 average, with 75% county average as “**substitute yield**” if your actual yield lower for a year
- 3. If no yield data, get 90% of 75% of county average
- **Recommendation: Choose option giving highest Yields**
- http://www.fsa.usda.gov/Internet/FSA_File/plc_subyields_web.xls

Substitute Yields by Crop				
County	Corn	Wheat	Soybeans	Oats
Columbia	110.0	53.0	33.0	42.0
Dane	108.0	57.0	35.0	51.0
Sauk	99.0	50.0	32.0	41.0

Yield Updating Tool

http://www.fsa.usda.gov/Internet/FSA_File/evaluate_arc_plc.pdf

Instructions: Enter information
in blue-shaded cells

Step 1: Enter Farm Number, State, and County
Step 2: Enter the substitute yields for the administrative county in the "County Substitute Yield Table" to the right.
Step 3: Enter name of covered commodity, (substitute yield will automatically populate)
Step 4: Enter the farm's CC yield.
Step 5: Enter an "X" and below the "X" enter the applicable year's yield for each year the crop was planted.
The yield that is entered will be crossed out, if the yield is lower than the substitute yield.
Step 6: The higher of the actual yield or the substitute yield will be displayed.
Step 7: The simple average yield, 90% of the simple average yield, and the resulting PLC yield will be displayed.

PRINT



Step 1:			
Enter Farm Number	Enter State	Enter County	
	WI	Rock	


Step 3:		Step 4:	Step 5 & 6:					Step 7:		
Covered Commodity	Substitute Yield	CC Yield	Year					A. Simple Ave Yield	B. 90% of Simple Avg Yield	C. PLC Yield (higher of CC Yield or 90% of Simple Ave)
			2008	2009	2010	2011	2012			
	Enter "X" if planted-->									
	Higher of Actual or Substitute Yield									
	Enter "X" if planted-->									
	Higher of Actual or Substitute Yield									
	Enter "X" if planted-->									
	Higher of Actual or Substitute Yield									
	Enter "X" if planted-->									
	Higher of Actual or Substitute Yield									
	Enter "X" if planted-->									
	Higher of Actual or Substitute Yield									

Step 2:
County Substitute Yield Table
(75% of 2008-12 average county yield)

Covered Commodity	Substitute Yield
Barley	
Canola	
Chickpeas, Large	
Chickpeas, Small	
Corn	110
Crambe	
Flaxseed	
Grain Sorghum	
Lentils	
Mustard Seed	
Oats	
Peanuts	
Peas, Dry	
Rapeseed	
Rice, Long	
Rice, Medium	
Safflower	

- Enter data into an online tool:

<http://fsa.usapas.com/>

**United States Department of Agriculture**
Farm Service Agency

Search FSA

USDA HomeFarm Bill Analysis HomeAPAS Sample FarmsAPAS Custom Farms BYOF

Site Map

Agriculture Policy Analysis System (APAS)

APAS Sample Farm

Five Minute Review of Analytics for Your County


Quick program payment comparison using data for your state and county

APAS Custom Farm
Build Your Own Farm

Enter your own farm's information for detailed program and risk management analysis

NAP Crops
Coming Soon

Dairy

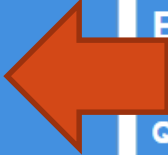

Start Here for Program & Tool Explanation

Payment Yield Update
Quick Calculator

Base Acre Reallocation
Quick Calculator

APAS FAQ
Coming Soon

YouTube Channel
Coming Soon



- Enter data into an online tool: <http://fsa.usapas.com/>
- Automatically uses substitute yields for your county

Payment Yield Update

Minimum Yield Lookup

State

Wisconsin

County

Barron

Crop

Corn

Minimum Yield:

100 bushels/acre

Historical yields per planted acre

Please enter yields in bushels/acre. If the crop was not planted, leave the entry blank. Averages are only taken when crops were planted or prevented from planting.

2008

155

2009

170

2010

165

2011

179

2012

165

Calculate

Updated Payment Yield:

150 bushels/acre

Comments

- Cannot increase total base acres
- Can update base acre split and not yields, yields and not base acre split, both base acres and yields, or neither
- Can update yields for each crop separately
- Renters and Landlords have to work together: often the renter has the production information, but the landlord does the paperwork and signs the forms
- Not all landlords will understand what's going on -- it's been more than a decade since this last happened
- Get signatures on updating base acres and yields, even if do not change, otherwise you cannot make PLC/ARC election until March 1, 2015

Multi-Step Process with Different Deadlines

- Step 1: Maintain or Reallocate Base Acres
 - Step 2: Maintain or Update Payment Yields
 - Step 3: Elect PLC/ARC-CO/ARC-IC
 - Step 4: Consider SCO
 - Step 5: Enroll in PLC/ARC
 - Farmers and land owners will have to choose
 1. PLC
 2. County ARC by Crop
 3. Individual ARC for Whole Farm
 - Irrevocable choice for 2014 – 2018 crop years
- By 2/27/15
1 Owner Signs
3/31/2015
By 3/15/2015
By Summer 2015
Producer Signs

New Commodity Support Programs

- 3 Options

- 1) Price Loss Coverage (PLC)

- Agriculture Risk Coverage (ARC)

- 2) County ARC (ARC-CO) by crop

- 3) Individual ARC (ARC-IC) for whole farm

- **Most farmers will find County ARC the best option, especially for corn and soybeans**
- **Farmers may find PLC the best option for wheat and oats in some counties**
- **There are always exceptions!**

New Commodity Support Programs

- **Price Loss Coverage (PLC)**

- Establishes a price floor based on national marketing year average price
- Essentially Counter-cyclical payments, but higher Reference prices:
 - **Corn \$3.70, Soybeans \$8.40, Wheat \$5.50**
- Can buy Supplemental Coverage Option (SCO) crop insurance as an add-on option

- **Agriculture Risk Coverage (ARC)**

- Establishes a revenue floor
- Essentially a new and improved ACRE program
- 1) County revenue by Crop (County ARC or ARC-CO)
- 2) Individual revenue for Whole Farm (ARC-IC)

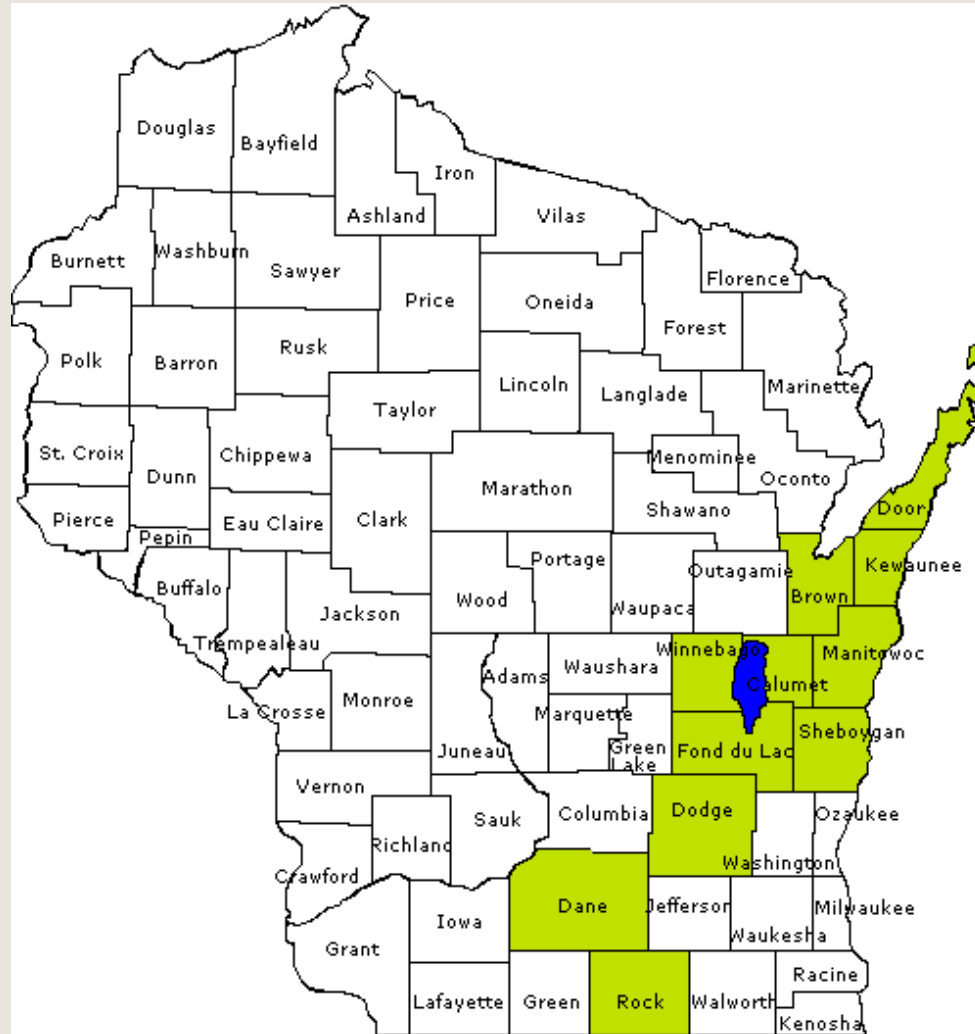
Simple PLC Example

- If the corn National Marketing Year Average Price were \$3.50
- Corn Reference Price is \$3.70 > \$3.50, so PLC payments are triggered, Payment Rate = $\$3.70 - \$3.50 = \$0.20/\text{bu}$
- If have 80 corn Base Acres with a existing Payment Yield of 105 bu/ac, then your PLC payment would be
- $85\% \times 80 \text{ ac} \times \mathbf{105} \text{ bu/ac} \times \$0.20/\text{bu} = \$1,428$
- If you have an updated Payment Yield of 130 bu/ac, then your PLC payment would be
- $85\% \times 80 \text{ ac} \times \mathbf{130} \text{ bu/ac} \times \$0.20/\text{bu} = \$1,768$
- This is why if you update payment yields, pick the option that gives the highest payment yields

Supplemental Coverage Option (SCO)

- If you sign up for PLC, you have the option to buy SCO: allows you to insure part of your RP/YP deductible with a county policy (ARP/AYP)
 - Layer individual & county coverage
 - Can't exceed 86% total coverage
- Add SCO to an RP policy to increase coverage up to the 86% maximum
 - SCO will not pay until county loss exceeds 14%
 - 65% SCO premium subsidy (farmer pays 35%)
- SCO available in 2015, only commodities in PLC

Counties with SCO for Wheat



ARC Comments

- County ARC varies by county: guarantee, maximum payments, and actual yields
- County ARC guarantee varies over time: 5 year moving Olympic Average
- Similar to a county-level revenue insurance with an 86% coverage level
- Differences
 - Uses 5-Year Olympic Average of prices and yield to determine guarantee
 - Uses national marketing year average price as the actual price, not CME futures prices

Olympic Averaging: Unofficial 2014 Corn

Example Columbia County

Year	Yield	Price
2013	154	4.46
2012	105	6.89
2011	160	6.22
2010	172	5.18
2009	162	3.55


- Olympic Average Yield = 158.7
- Olympic Average Price = 5.29
- ARC County Benchmark = $5.29 \times 158.7 = \$839.52$
- Maximum ARC Payment = $10\% \times \$839.52 = \83.95
- ARC Guarantee = $86\% \times \$839.52 = \721.99

County ARC Payment Example

- Suppose 2014 County ARC Guarantee is \$839 for corn
- Suppose 2014 actual USDA yield is 180 bu/ac and 2014 MYA corn price is \$3.60
- Actual revenue is $180 \times 3.60 = \$648/\text{ac}$
- $\$648 < \839 , triggers County ARC payment
- ARC Payment Rate = $\$839 - 648 = \$191/\text{ac}$: exceeds max
- Maximum ARC payment = $10\% \times \text{County guarantee } (\$839)$
- So ARC Payment Rate = \$83.90
- ARC Payment = $85\% \times \text{Base Acres} \times \text{ARC Payment Rate}$
- ARC Payment = $85\% \times 1 \text{ acre} \times \$83.90 = \$71.32$ per corn base acre

Decision Aids: U of IL with USDA Funding



<http://fsa.usapas.com/>

**United States Department of Agriculture**
Farm Service Agency

Search FSA

[USDA Home](#) [Farm Bill Analysis Home](#) [APAS Sample Farms](#) [APAS Custom Farms BYOF](#) [Site Map](#)

Agriculture Policy Analysis System (APAS)

APAS Sample Farm Five Minute Review of Analytics for Your County Quick program payment comparison using data for your state and county	APAS Custom Farm Build Your Own Farm Enter your own farm's information for detailed program and risk management analysis	NAP Crops Coming Soon
		Dairy
 Start Here for Program & Tool Explanation	Payment Yield Update Quick Calculator	Base Acre Reallocation Quick Calculator
	APAS FAQ Coming Soon	YouTube Channel Coming Soon

Wisconsin

Rock

CBO Prices

75 Percent Coverage

Select Sample Farm

Cropped Acre Usage

Sample Farm

Expected Program Payments

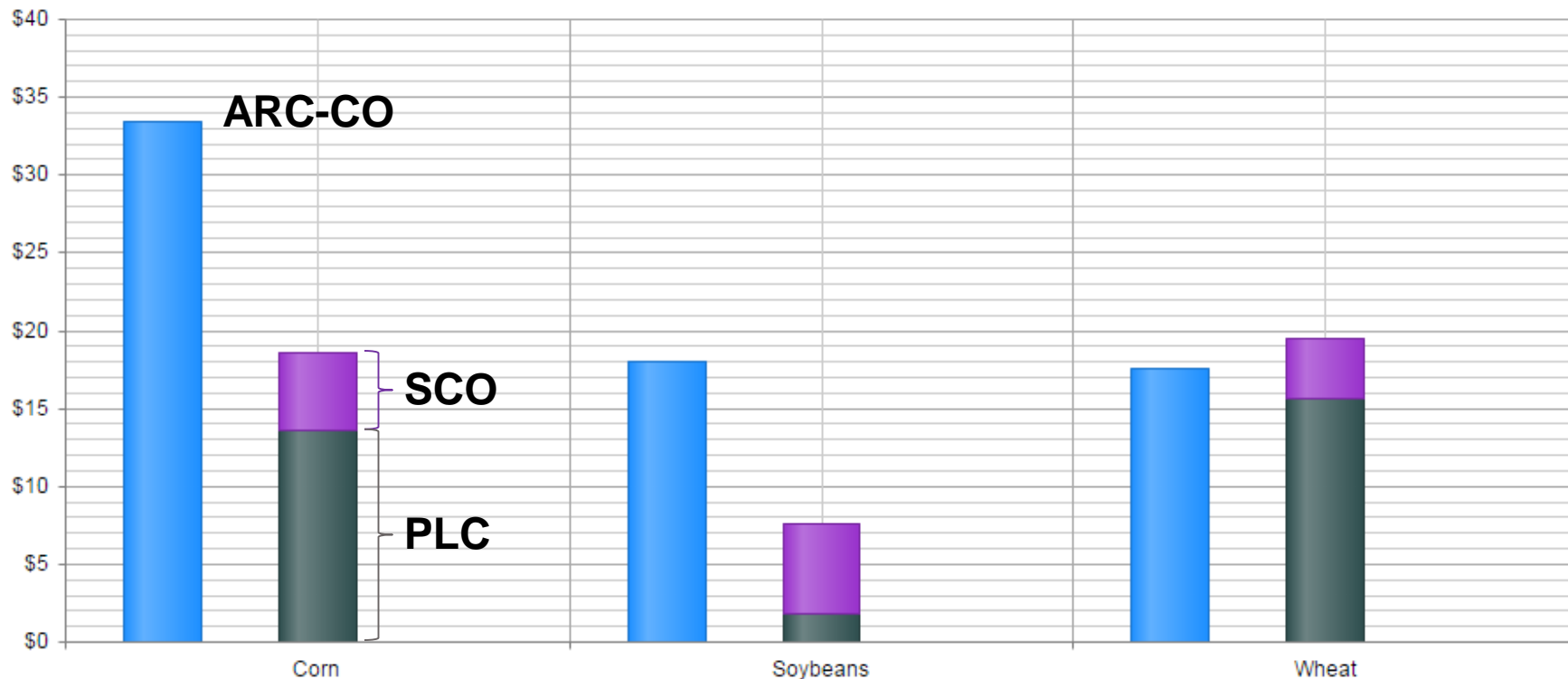
Safety Net

Expected Sample Farm Program Payments

Expected Program Payments per Acre by Crop

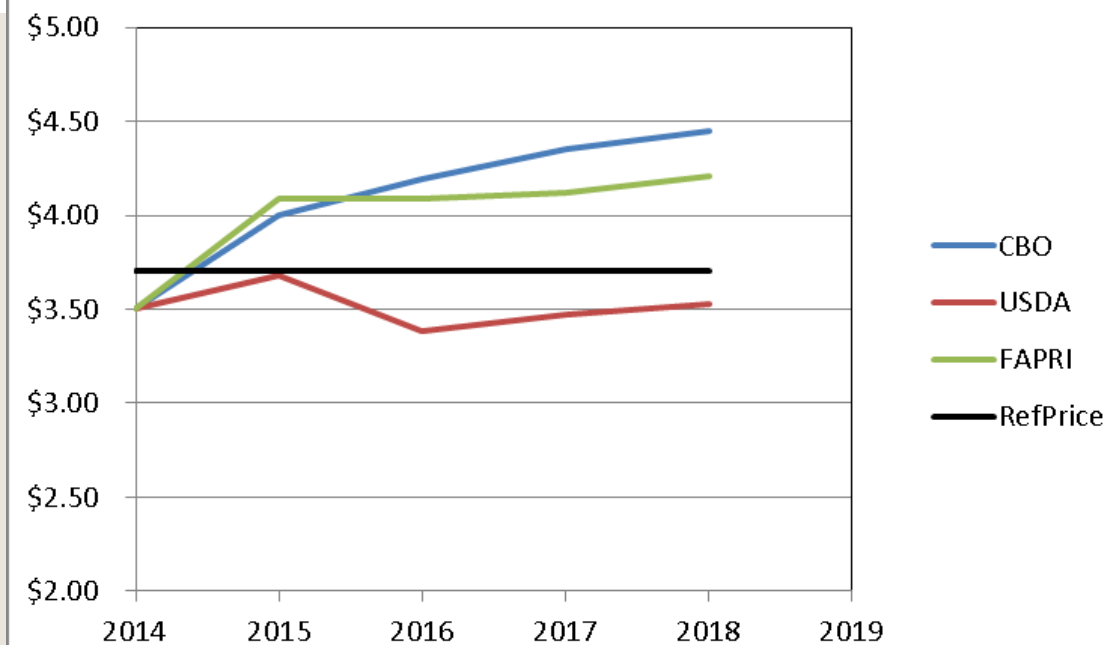
5 Year Horizon

Expected Crop Program Payments By Acre For Rock County Wisconsin Sample Farm

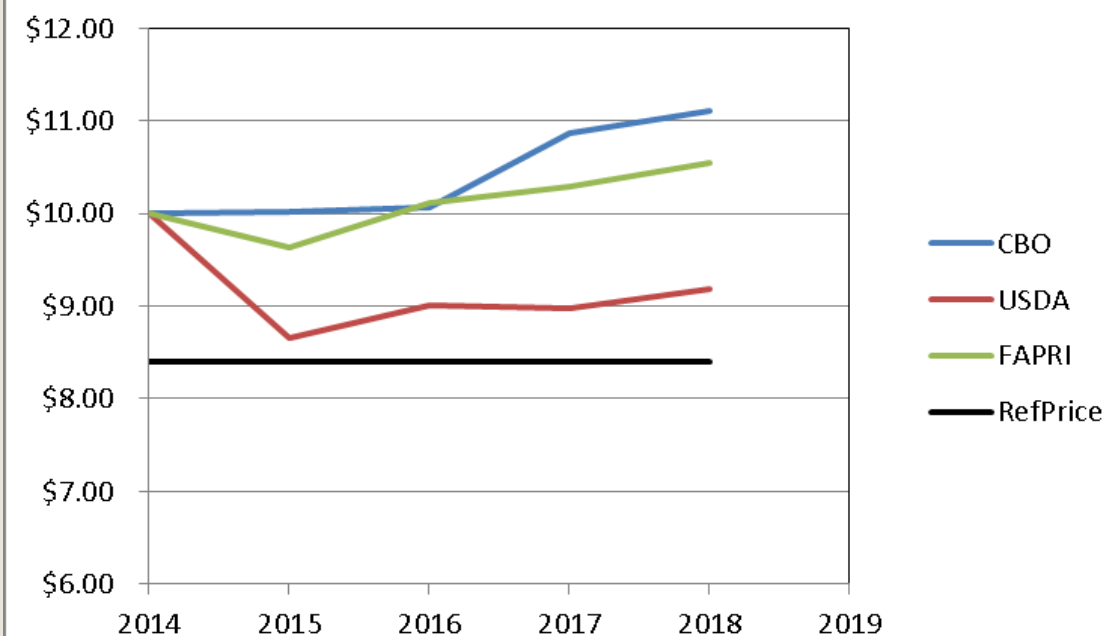


Expected program payments are estimated average annual payments for the sample farm using the different programs, including program selections optimized over different planning horizons.

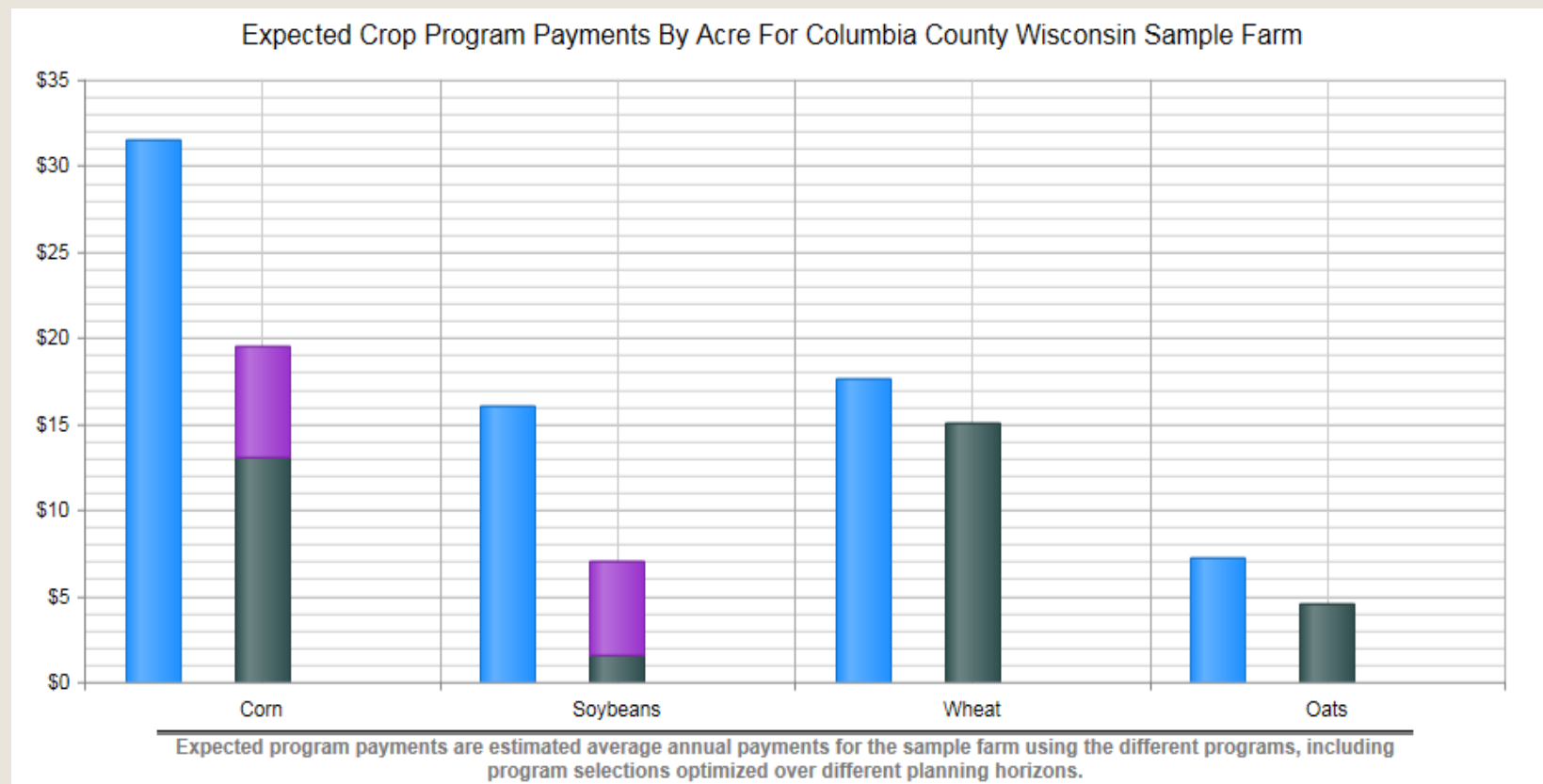
CORN



SOYBEAN



Columbia County, FAPRI Prices, 75% RP Coverage, 5-year horizon



- Corn > Wheat ≥ Soybeans > Oats
- County ARC > PLC+SCO for corn, soybeans and wheat

Main Points

- When choosing Base Acre Reallocation
 - Corn > Wheat \geq Soybeans > Oats
 - Get as many Corn base acres as you can
- **What about County ARC versus PLC?**
 - Depends on prices use/assume, but generally ARC better for corn & soybeans in most counties
 - PLC+SCO is a better option for Wheat in counties that SCO is available for Wheat (Dane, Rock, Dodge)

Comments

- Charts use county average Payment Yields for PLC
 - Actual farm Payment Yields will be higher or lower depending on how farm yields relate to county yields
- SCO payments are net of premiums
- These are estimates of average payments under different price expectations
- These are not direct payments: no guaranteed payments
- Estimates are not always correct
- Averages are not certain
 - The average of rolling two dice is 7, but this does not mean you always get a 7, you can still roll 2's and 12's

Summary: ARC versus PLC

- **Corn:** In most counties $ARC > PLC$ except with pessimistic prices, and if $PLC > ARC$, it's not by much
 - Recommend County ARC (ARC-C), cost of being wrong is not large, unless pessimistic about prices
 - Is your county an exception? Are you an exception?
- **Soybeans:** $ARC > PLC$: I have not found an exception
 - Recommend County ARC (ARC-CO)
- **Wheat:** $ARC > PLC$, however $PLC+SCO > ARC$
 - Recommend County ARC (ARC-CO) unless $PLC+SCO$ is available (Dane, Dodge, Rock)

Quick Summary

- Relax, plenty of time to make decisions
 - 2/27/15 for base acre/yield updates, **can be done now!**
 - 3/31/15 for PLC/ARC election choice
 - 3/15/15 if want SCO crop insurance with PLC
 - Summer 2015 to signup
- Start playing with the tool: <http://fsa.usapas.com/>
 - APAS Custom Farm: Build Your Own Farm
- **For most farms**
 - 1) Updating yields will be worth it
 - 2) Updating base acres if you can get more corn
 - 3) County ARC a fine selection for corn, soybeans and wheat when PLC+SCO is not available

Quick Summary

- Individual Farm Examples can be completed online or with assistance of County Ag Extension Agent
- Announcements via UW Extension and ag media
- Official list of FSA/UW Extension meetings being held throughout Wisconsin: <http://www.fsa.usda.gov/wi>
- Focus will be on the decision tool <http://fsa.usapas.com/>
 - APAS Custom Farm: Build Your Own Farm
- Great outreach information
<http://farmbilltoolbox.farmdoc.illinois.edu/>